

Specification

Neon-Flex Series-4

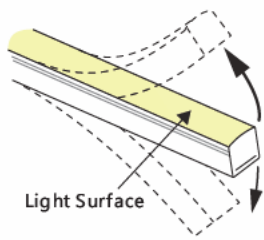


1. Specifications & Parameters

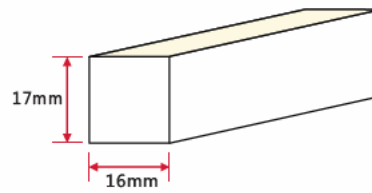
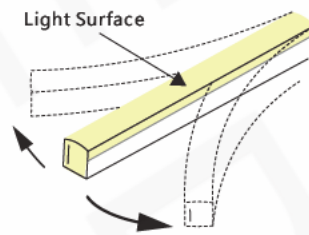


1.1 Dimensions of Light

NFS4-24V-VB



NFS4-24V HB



Note: Unless otherwise stated, the tolerance of the light is $\pm 0.3\text{mm}$.

1.2 Technical Parameters

Technical Parameters

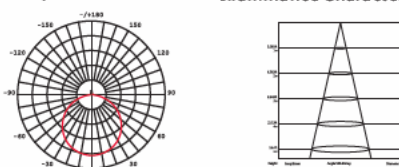
Article No.	NFS4-24V	NFS4-24V	NFS4 24V R80
Color	Red/Amber	Green/Blue	White/Green/Blue
Working Voltage	DC24V	DC24V	DC24V
Rated Power/m	8W	12W	12W
LED Qty/m	108LEDs	108LEDs	108LEDs
LED Distance	9.26mm	9.26mm	9.26mm
Min. Cutting Unit	9LEDs (1unit)	6LEDs (1unit)	6LEDs (1unit)
Min. Cutting Length	83.3mm(1unit)	55.6mm(1unit)	55.6mm(1unit)
Continuous Length	15m	10m	10m
Weight/m	350g		
Storage Temperature	20~60°C		
Ambient Working Temperature	20~45°C		
Ambient Installation Temperature	0~45°C		
IP Rating	IP68		

1.3 Optical Parameters

Photometric Data

Article No.	NFS4-24V				VB		HB	
LED Type	SMD							
Beam Angle 50%	120°							
Color	Wavelength	Lumen/m	Color	CCT	Lumen/m	Lumen/m		
Red	618-624nm	>130lm	2200K	2238±102K	>420lm	>400lm		
Green	522-528nm	>300lm	2700K	2725±145K	>420lm	>400lm		
Blue	468-474nm	>50lm	3000K	3045±175K	>420lm	>400lm		
Amber	588-594nm	>130lm	3500K	3465±245K	>480lm	>450lm		
			4000K	3985±275K	>480lm	>450lm		
			5700K	5669±355K	>450lm	>400lm		

Candle power distribution Illuminance Characteristics



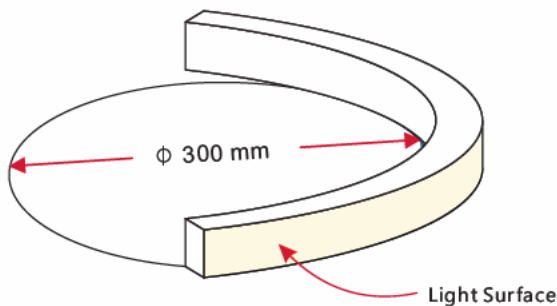
2. Functions & Features

2.1 Product Features

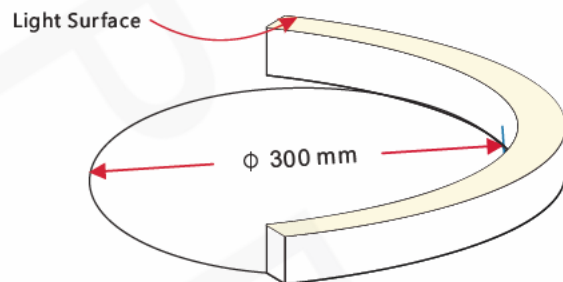
1. High quality SMD LED chip.
2. Protection Circuit: Each LED Protected.
3. UV & flame resistant construction(PVC).
4. Extremely flat profile for slimline projects.
5. Perfect uniform & even light source with invisible light dots.
6. High illumination.
7. Easily to be installed.
8. High IP rating (IP68)
9. The product IP rate is ultimately in line with properly applied IP rated connectors.
10. Continuous length up to 15m (R, A)/10m (G, B, W) by powering one end.
11. Environmentally friendly & energy efficient.
12. Automated production, high reliability & long warranty.
13. 5 years life span.

2.2 Minimum Bend Diameter

NFS4-24V VB



NFS4-24V HB



The light can only be bent along the light surface. Do not bend smaller than allowed minimum bend diameter.

3. Types of Connector

3.1 Injection-moulded Connector

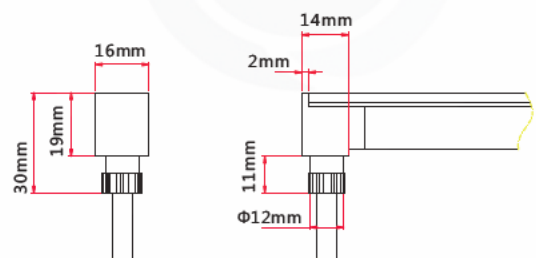
Note:

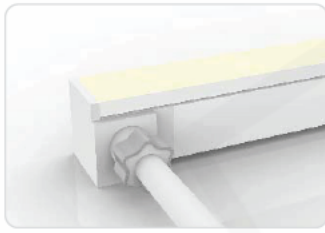
1. Unless otherwise stated, the tolerance of the connector is $\pm 0.5\text{mm}$;
2. Continuous length up to 15m(R/A)/10m(G/B/W) by powering one end.



Injection-moulded Front Connector (bottom)

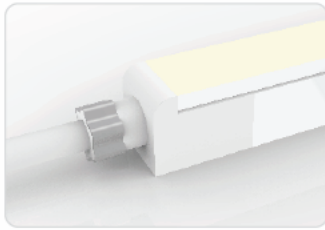
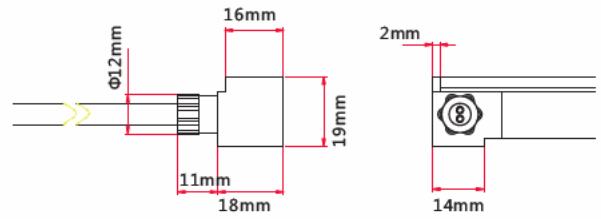
Connects light to power supply with pre installed bottom feed cable IP67. Available in 0.3m, 1m, 3m, 5m, 10m, 15m, 20m lengths.





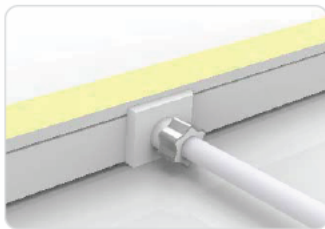
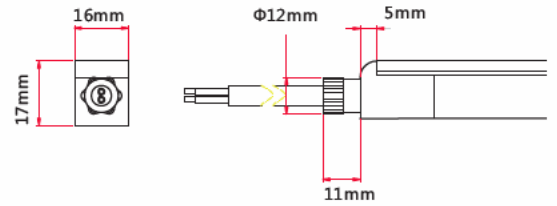
Injection-moulded Front Connector (side)

Connects light to power supply with pre installed side feed cable, IP67. Available in 0.3m, 1m, 3m, 5m, 10m, 15m, 20m lengths.



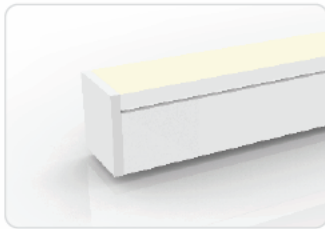
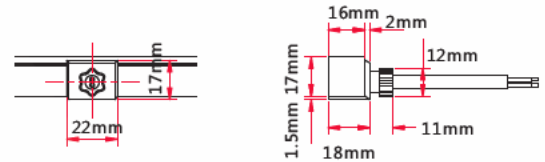
Injection-moulded Front Connector (end)

Connects light to power supply with pre installed end feed cable, IP67. Available in 0.3m, 1m, 3m, 5m, 10m, 15m, 20m lengths.



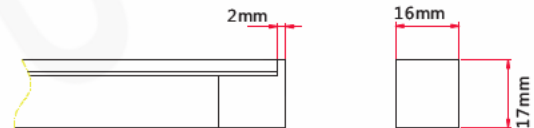
Injection-moulded Middle Feed Connector

Connects light to power supply with pre installed end feed cable, IP67. Available in 0.3m, 1m, 3m, 5m, 10m, 15m, 20m lengths.



Injection-moulded End Cap

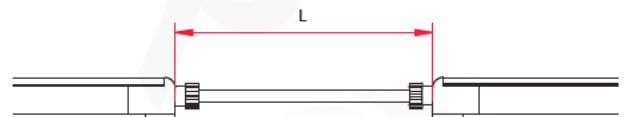
Pre installed termination protection of the light, IP67.



Injection-moulded Jumper

Connects two pieces of lights together with a flexible cable. IP67 Injection moulded connector. L available in 0.3~1m.

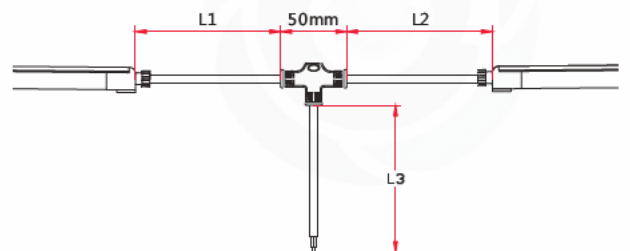
Maximum 8 Jumpers in 20m
Maximum 4 Jumpers in 10m



Injection-moulded T-feed

Connects two pieces of lights together with a T joint, energized from middle. IP67 Injection moulded connector. L1 and L2 available in 0.15~0.5m. L3 available in 0.3~3m.

Maximum 8 T feeds in 20m
Maximum 4 T feeds in 10m



3.2 Dual Injection-moulded Connector

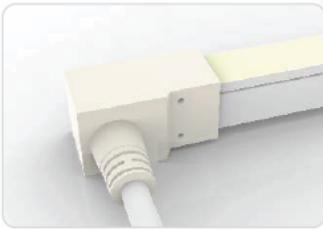
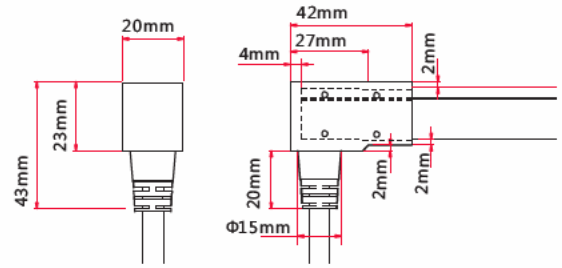
Note:

1. Unless otherwise stated, the tolerance of the connector is $\pm 0.5\text{mm}$;
2. Continuous length up to 15m(R/A)/10m(G/B/W) by powering one end.



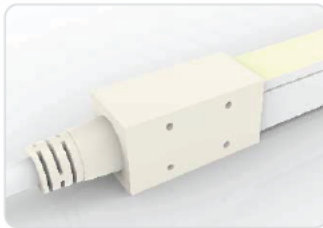
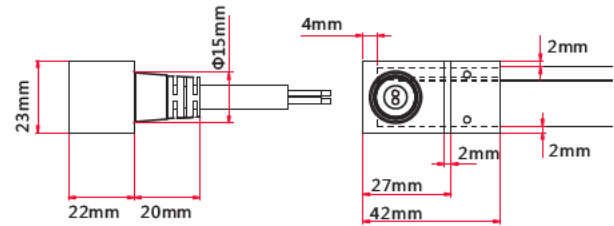
Dual Injection-moulded Front Connector (bottom)

Connects light to power supply with pre installed bottom feed cable, IP68. Cable length available in 0.3m, 1m, 3m, 5m, 10m, 15m, 20m.



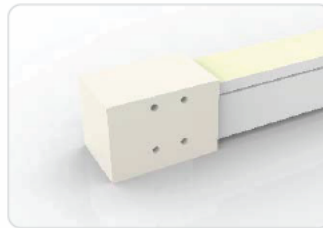
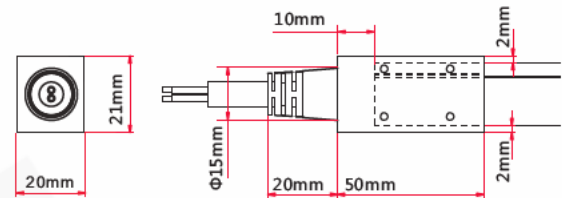
Dual Injection-moulded Front Connector (side)

Connects light to power supply with pre installed side feed cable, IP68. Cable length available in 0.3m, 1m, 3m, 5m, 10m, 15m, 20m.



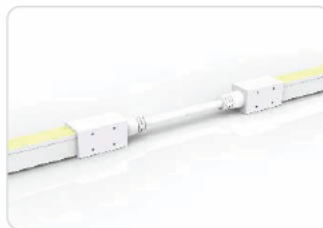
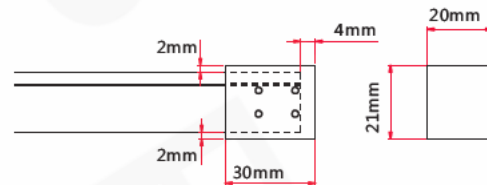
Dual Injection-moulded Front Connector (top end)

Connects light to power supply with pre installed end feed cable, IP68. Cable length available in 0.3m, 1m, 3m, 5m, 10m, 15m, 20m.



Dual Injection-moulded End Cap

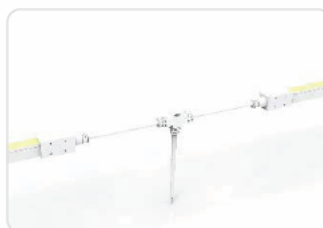
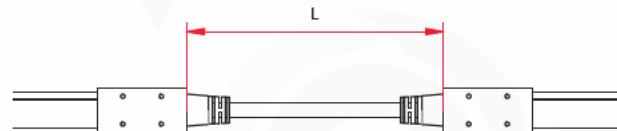
Pre installed termination protection of the light, IP68.



Dual Injection-moulded Jumper

Connects two pieces of lights together with a flexible cable. IP68 Dual Injection moulded connector. L available in 0.3~1m.

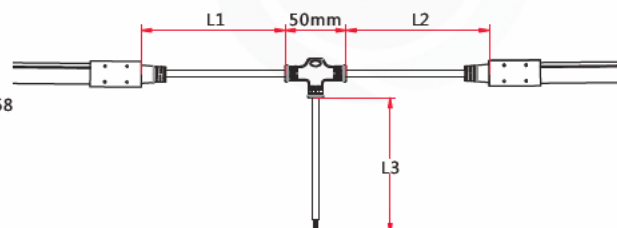
Maximum 8 Jumpers in 20m
Maximum 4 Jumpers in 10m



Dual Injection-moulded T-feed

Connects two pieces of lights together with a T joint, energized from middle. IP68 Dual Injection moulded connector. L1 and L2 available in 0.15~0.5m. L3 available in 0.3 3m.

Maximum 8 T feeds in 20m
Maximum 4 T feeds in 10m



3.3 Snap Connector

Note:

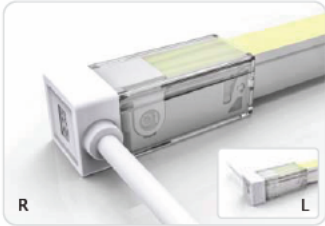
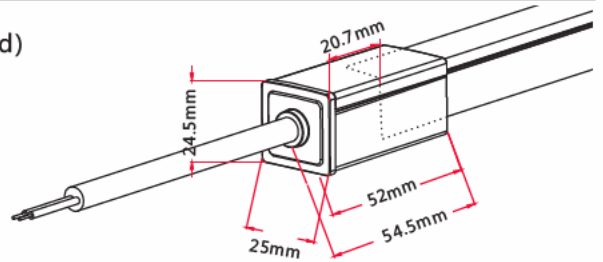
1. Unless otherwise stated, the tolerance of the connector is $\pm 0.5\text{mm}$;
2. Continuous length up to 15m(R/A)/10m(G/B/W) by powering one end.



Snap Front Connector(top end)

Connects light to power supply, IP67 DIY connector. Cable available in 0.3m, 1m, 3m, 5m, 10m, 15m, 20m lengths.

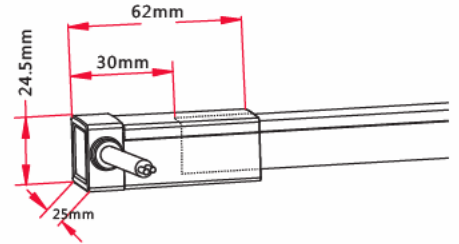
- Feed connector with silicone gasket *1 (Two pin)
- Anti skidding clip *1
- U steel plate *1
- PC Cover *1



Snap Front Connector(side right/left)

Connects light to power supply, IP67 DIY connector. Cable available in 0.3m, 1m, 3m, 5m, 10m, 15m, 20m lengths.

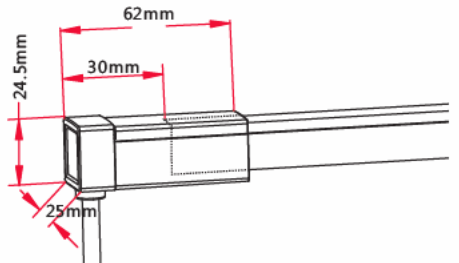
- Feed connector with silicone gasket *1 (Two pin)
- Anti skidding clip *1
- U steel plate *1
- PC Cover *1



Snap Front Connector(bottom)

Connects light to power supply, IP67 DIY connector. Cable available in 0.3m, 1m, 3m, 5m, 10m, 15m, 20m lengths.

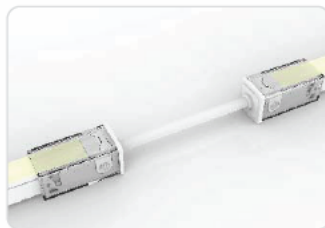
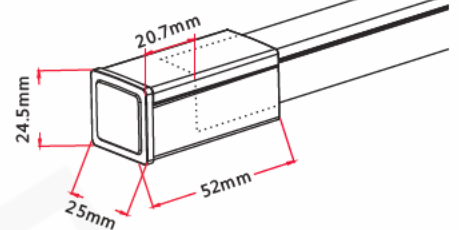
- Feed connector with silicone gasket *1 (Two pin)
- Anti skidding clip *1
- U steel plate *1
- PC Cover *1



Snap End Cap

Termination protection of the light, IP67 DIY connector.

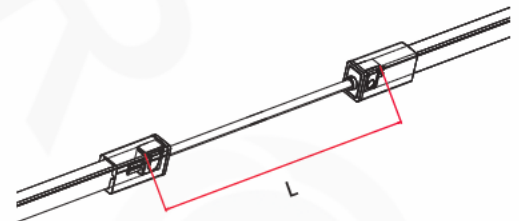
- Tail plug with silicone gasket *1
- Anti skidding clip *1
- U steel plate *1
- PC Cover *1



Snap Jumper

Connects two pieces of lights together with a flexible cable. IP67 DIY connector. L available in 0.3m, 1m and 3m.

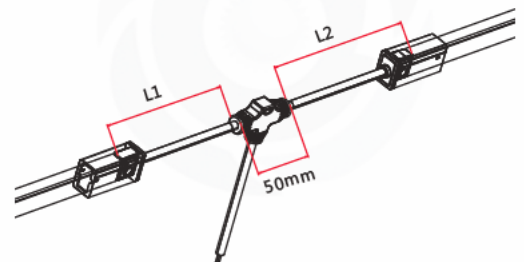
- Double end feed connector *1 (Two pin)
- Silicone gasket *2
- U steel plate *2
- Anti skidding clip *2
- PC cover *2



Snap Power T-feed

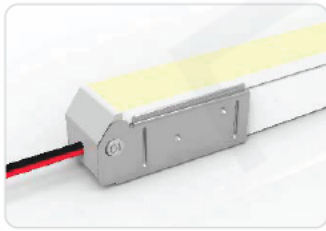
Connects two pieces of lights together with a T joint, energized from middle. IP67 DIY connector. L1 and L2 available in 0.3m.

- T joint *1 (Two pin)
- Silicone gasket *2
- U steel plate *2
- Anti skidding clip *2
- PC cover *2



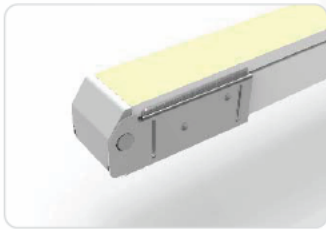
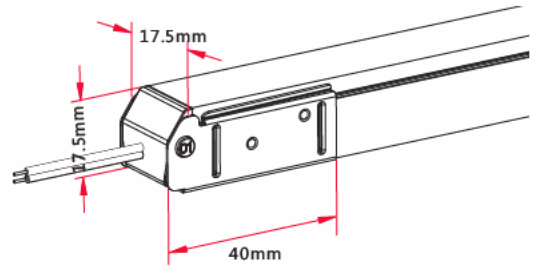
3.4 Swivel Connector

Note:
 1. Unless otherwise stated, the tolerance of the connector is $\pm 0.5\text{mm}$;
 2. Continuous length up to 10m(R/A)/5m(G/B/W) by powering one end.



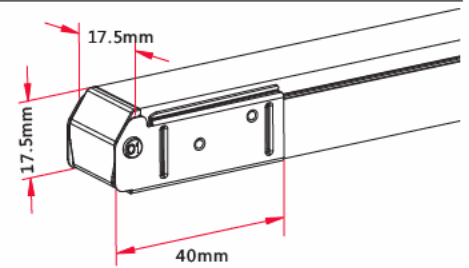
Swivel Front Connector (top end)

Connects light to power supply. IP20 DIY connector. Cable length available in 0.3m, 1m.



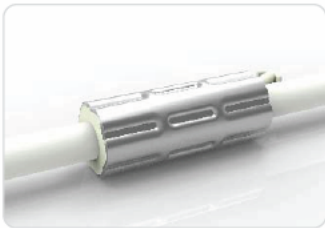
Swivel End Cap

Termination protection of the light, IP20 DIY connector.



3.5 Anti-wicking Ferrule

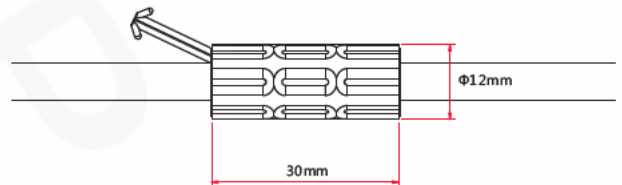
Note: Unless otherwise stated, the tolerance is $\pm 0.5\text{mm}$.



Anti-wicking Ferrule

The anti wicking ferrule is located at 115mm ($\pm 5\text{mm}$ tolerance) from the connector on the cable.

For protection against water ingress from inside of cable wire and hence damage the light.



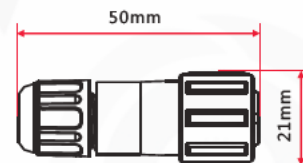
3.6 Male & Female Connector

Note: Unless otherwise stated, the tolerance is $\pm 2\text{mm}$.



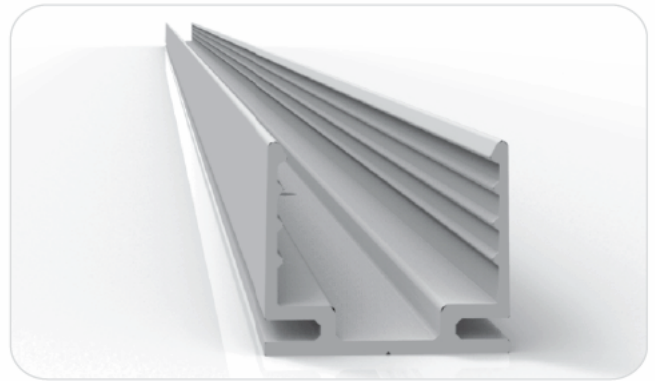
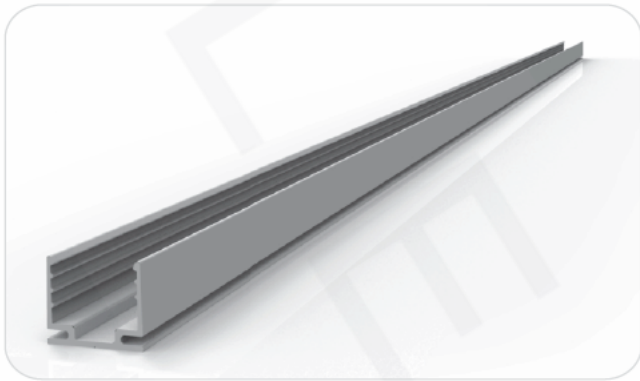
Male & female Connector

For plug and play cable junction, DIY or Pre installed connector, IP68

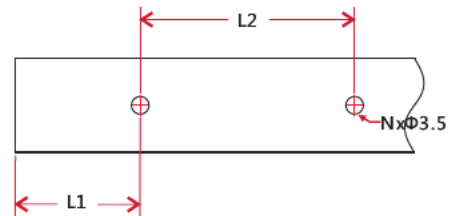
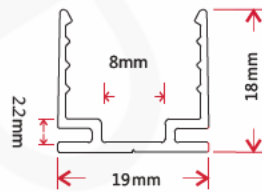
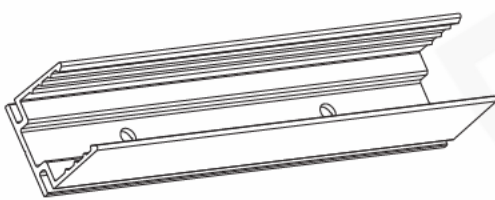


4. Mounting Profile

4.1 Standard Aluminum Profile



Dimensions Note: Unless otherwise stated, the tolerance of the profile is $\pm 0.5\text{mm}$.

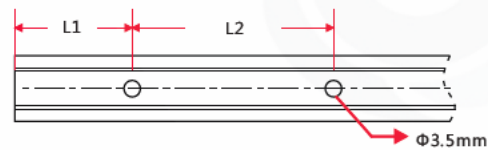
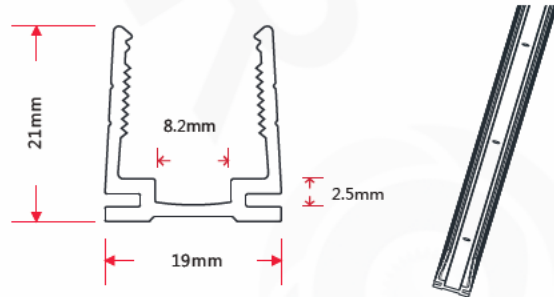


Installation Way



Model	W*H(mm)	Standard Length (mm)	L1 (mm)	L2 (mm)	Screw Hole (mm)	Hole Number
S4 A/PL	19*18	35	17.5	/	$\Phi 3.5$	1
		500	50	200	$\Phi 3.5$	3
		1000	100	200	$\Phi 3.5$	5
		2000	100	200	$\Phi 3.5$	10

4.2 Plastic Profile



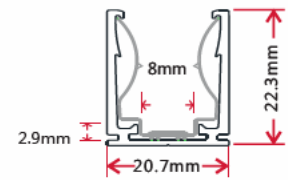
Note: Unless otherwise stated, the tolerance of the profile is $\pm 0.5\text{mm}$.

Installation Way



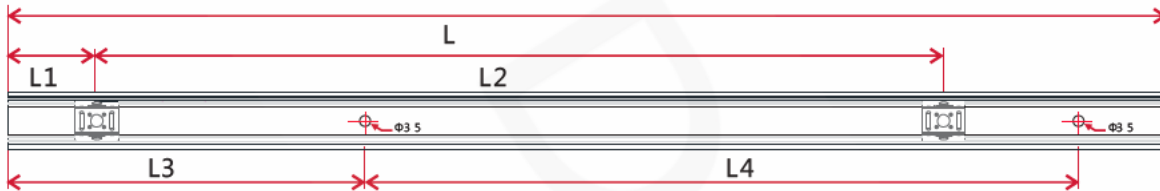
Model	W*H(mm)	Standard Length (mm)	L1 (mm)	L2 (mm)	Screw Hole (mm)	Hole Number
S4 P/PL	19*21	500	50	200	$\Phi 3.5$	3
		1000	100	200	$\Phi 3.5$	5
		2000	100	200	$\Phi 3.5$	10

4.3 Spring Clip Aluminum Profile



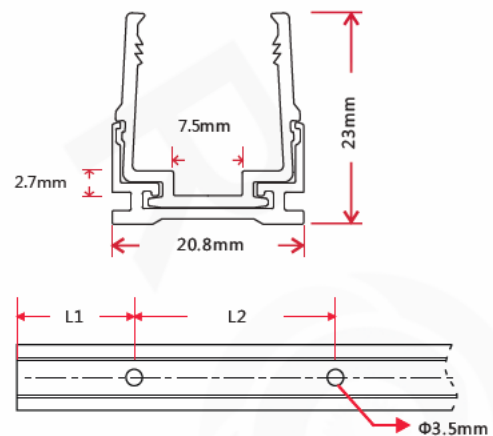
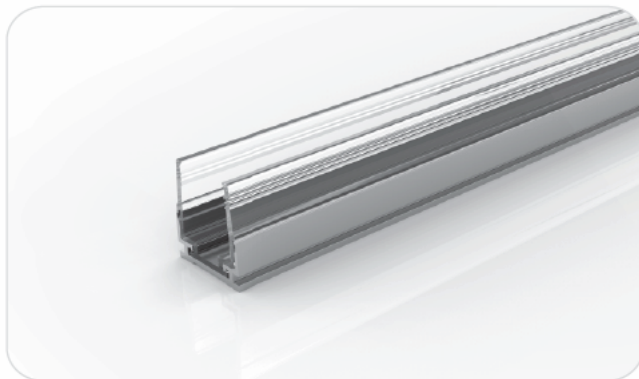
Note: Unless otherwise stated, the tolerance of the profile is $\pm 0.5\text{mm}$.

Installation Way



Model	W*H(mm)	Standard Length(mm)	L1(mm)	L2(mm)	L3(mm)	L4(mm)	Hole Screw(mm)	Hole Number	Clip Number
S4 SCA/PL	20.7*22.3	35	17.5	/	5	25	$\phi 3.5$	2	1
		500	25	150	50	200	$\phi 3.5$	3	4
		1000	25	190	100	200	$\phi 3.5$	5	6
		2000	25	195	100	200	$\phi 3.5$	10	11

4.4 Hybrid Profile



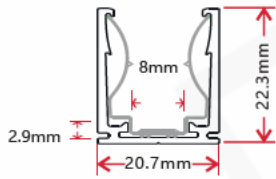
Note: Unless otherwise stated, the tolerance of the profile is $\pm 0.5\text{mm}$.

Installation Way

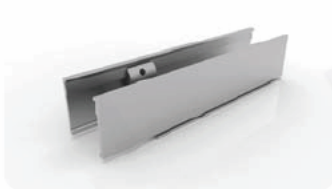


Model	W*H(mm)	Standard Length (mm)	L1 (mm)	L2 (mm)	Screw Hole (mm)	Hole Number
S4 HP/PL	20.8*23	35	17.5	/	$\phi 3.5$	1
		500	50	200	$\phi 3.5$	3
		1000	100	200	$\phi 3.5$	5
		2000	100	200	$\phi 3.5$	10

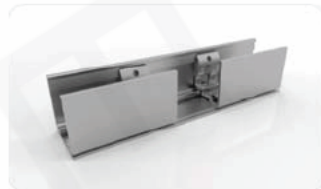
4.5 Cable Exit Oriented Aluminum Profile (Applicable to Injection-moulded Connector Only)



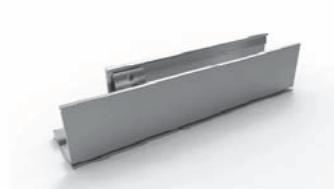
Note: Unless otherwise stated, the tolerance of the profile is $\pm 0.5\text{mm}$.



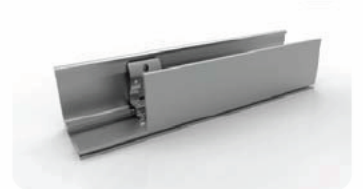
Bottom Feed



Middle Feed

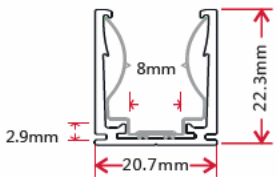


Side Feed From Left

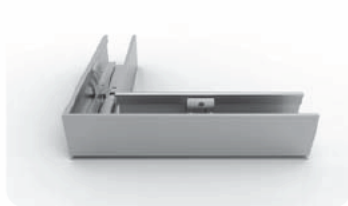


Side Feed From Right

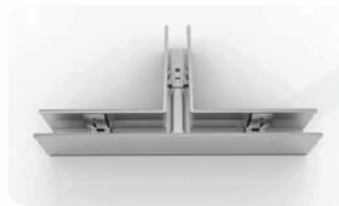
4.6 Corner Aluminum Profile (Applicable to Injection-moulded Connector Only)



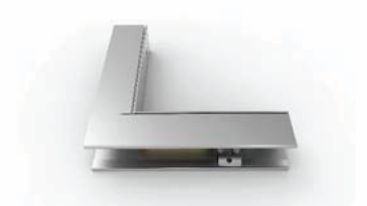
Note: Unless otherwise stated, the tolerance of the profile is $\pm 0.5\text{mm}$.



L Shape



T Shape



Outward L Shape



Inward L Shape



X Shape

NOTE: Please contact our sales team for more detailed information

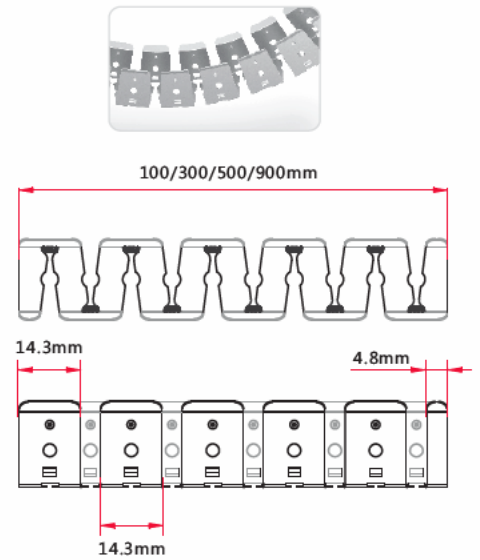
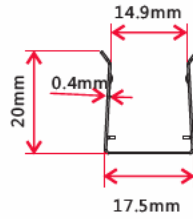
4.7 Bendable Stainless Steel Profile



Model: S4-CS/PL

Note: Unless otherwise stated, the tolerance of the profile is $\pm 0.5\text{mm}$.

Installation Way

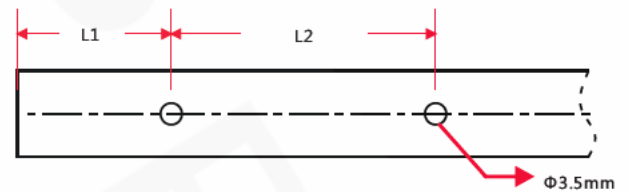
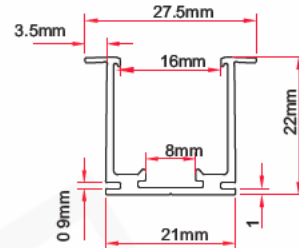


4.8 Recessed Mounting Profile



Note: Unless otherwise stated, the tolerance of the profile is $\pm 0.5\text{mm}$.

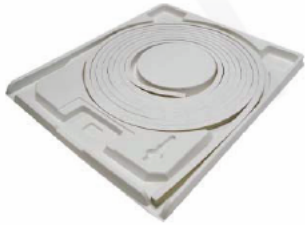
Installation Way



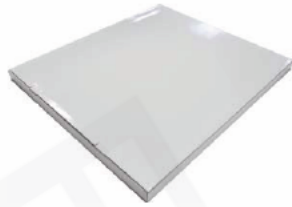
Model	W*H(mm)	Standard Length (mm)	L1 (mm)	L2 (mm)	Screw Hole (mm)	Hole Number
S4 RMA/PL	27.5*22	35	5	25	Φ3.5	2
		500	50	200	Φ3.5	3
		1000	100	200	Φ3.5	5
		2000	100	200	Φ3.5	10

5.Packaging

Packaging Method



Plastic Plate



White Box



Carton



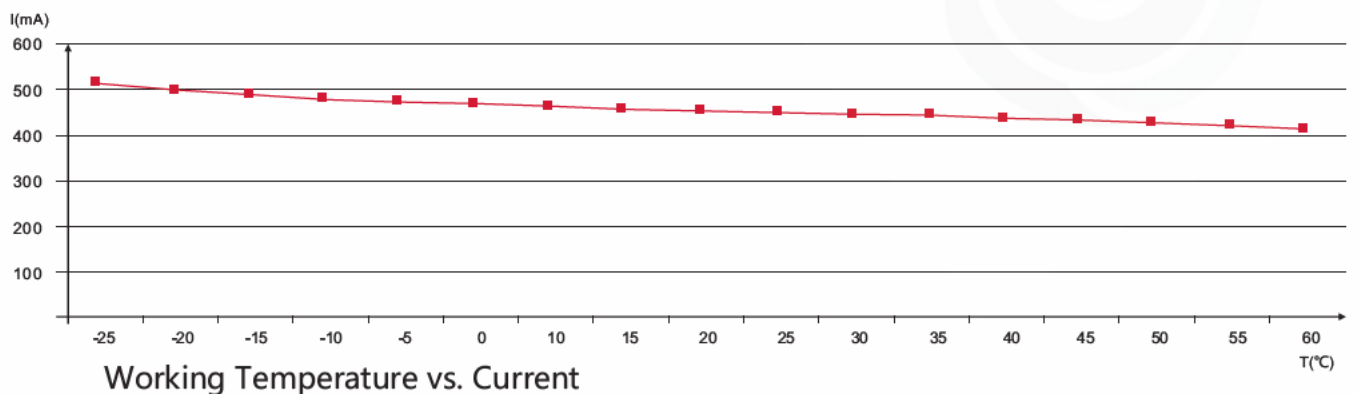
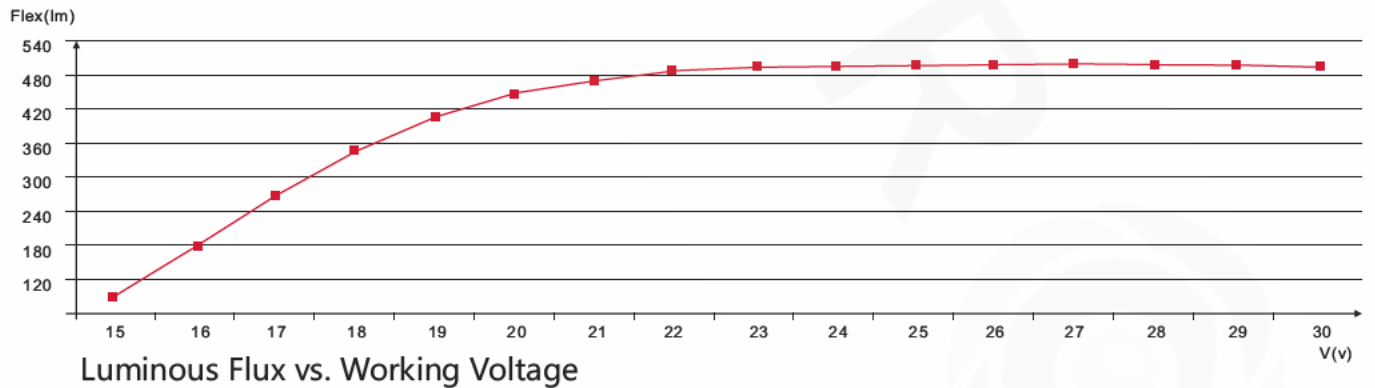
Packaging Detail

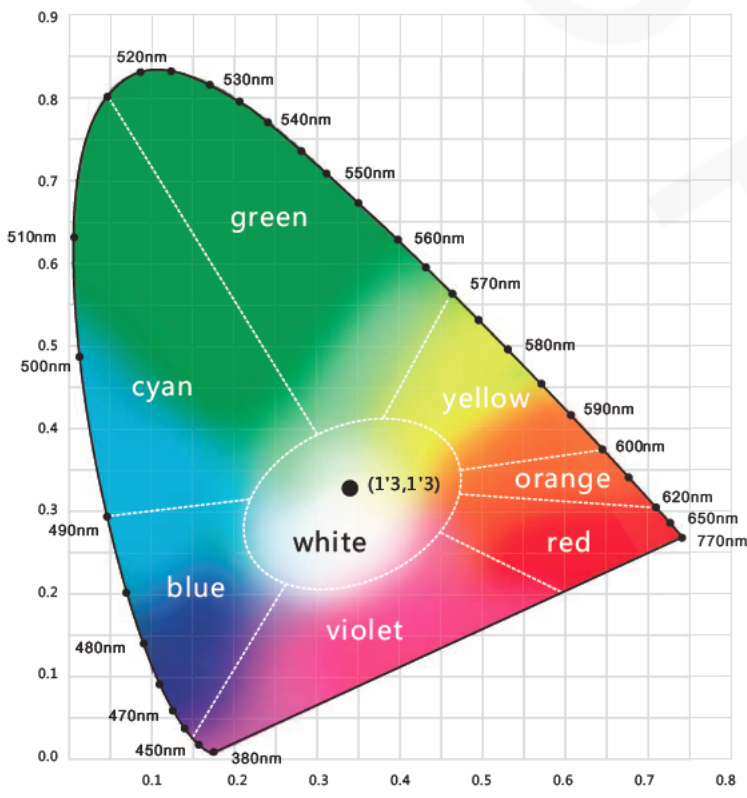
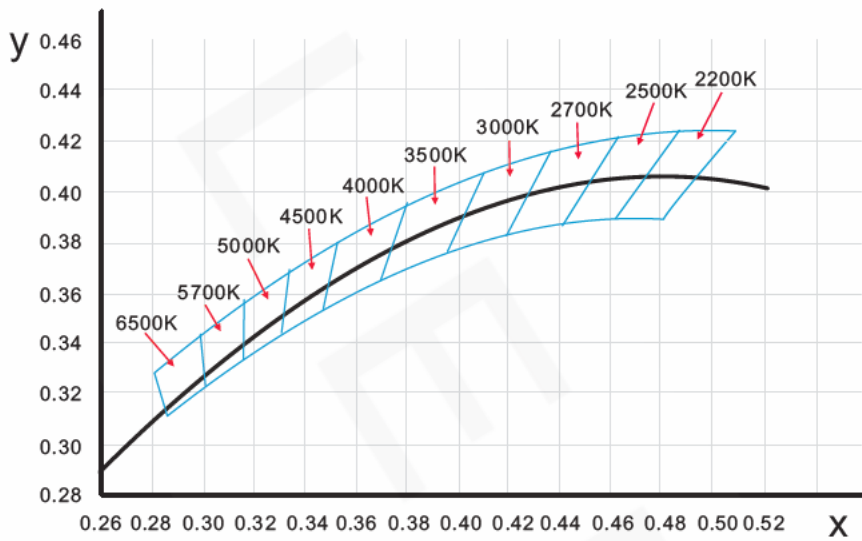
Light Length	White Box Dimension (cm)	Carton Dimension (cm)	Numbers of White Box	Carton Weight (kg)
<4.5m	39*5.2*50	52*41*28	5	<8
5 8m	51*5.2*62	64*53*17.5	3	6 9
5 8m	51*5.2*62	64*53*28	5	9 14
10m	60*3.7*71	73*62*20	5	17
15m	68*5.2*79	81*70*12.5	2	11

>>Note: The testing reports and certificates are available from the related official website.

TESTING ITEM	PERFORMANCE	STANDARD/REFERENCE VALUE/DESCRIPTION
PHOTOMETRIC TESTING	Spectrum Analysis	IES LM 79 (lumen, CCT, CRI, XY, SDCM, wave length)
	Photometric Distribution	IES LM 79(lumen intensity distribution & Lux diagram)
	Lumen Maintenance & Life Time	IES LM84 & IES TM28
TEMPERATURE RISE TESTING	Normal Temperature Test	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
	Abnormal Operation Test	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
MECHANICS & PHYSICS TESTING	Bending Test	Manufacturer-defined, 500 cycles
	Swing Test	UL2388, >750 cycles
	Tensile Test	Manufacturer-defined, > the weight of light in maximum connection length with both ends feed
	Twist Test	Manufacturer-defined, >200 cycles
	Ball Impact	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
	IK07 IK08	IEC62262
WEATHERING TESTING	Swimming Pool Water Immersion Test	GB9667, PH6.8-7.6, free chlorine 0.3-0.6mg/L
	Sea Water Immersion Test	IEC60598-1, Salinity 4%
	Salt Spray Test	IEC68-2-11
	Outdoor Exposure	Manufacturer-defined
ENVIROMENT TESTING	Flame Resistant Test	UL94
	UV Exposure Test	ASTMG 154 , ISO 4892-3 , UVA@340nm
	IPX5 IPX6 IPX7 IPX8	IEC60529
ENDURANCE & THERMAL TEST LAB	Temperature Shock Test	Manufacturer-defined , -40°C-60°C (typical temperature range)
	Constant Temperature Test	Manufacturer-defined , 70°C (typical temperature)

Figures of Typical Characteristics





Light Color

- Red**
618-624nm
- Green**
522-528nm
- Blue**
468-474nm



ANSI STANDARD

Nominal CCT Categories

Nominal CCT	Target CCT and tolerance(K)	Target D_{uv}	D_{uv} Tolerance Range
2200K	2238 ±102	0.0000	T_x :CCT of the source
2500K	2460±120	0.0000	For $T_x < 2870K$
2700K	2725 ±145	0.0000	0.000±0.0060
3000K	3045±175	0.0001	For $T_x \geq 2870K$
3500K	3465±245	0.0005	$D_{uv}(T_x) \pm 0.0060$
4000K	3985±275	0.0010	where
4500K	4503±243	0.0015	$D_{uv}(T_x) = 57700 \times (1/T_x)^2$
5000K	5029±283	0.0020	44.6 x (1/ T_x)
5700K	5667±355	0.0025	+0.00854
6500K	6532±510	0.0031	
Flexible CCT (2200 6500K)	$T_F^{1)} \pm \Delta T^{2)}$	$D_{uv} T_F^{3)}$	

Remark:

- 1) T_F is chosen to be at 100K steps (2300,2400,.....,6400K),excluding the ten nominal CCTs listed in Table 1.
- 2) $\Delta T = 1.1900 \times 10^8 \times T^3$
 $1.5434 \times 10^4 \times T^2 + 0.7168 \times T \quad 902.55$
- 3) Same as in the D_{uv} Tolerance Range.

Type.	Rated Power /m	Power Supply											
		35w	60w	75w	80w	100w	120w	150w	120w	150w	185w	240w	320w
S4	8w	3.5m	6m	7.5m	8m	10m	12m	15m			18.5m	24m	30m
	12w	2m	4m	5m	5m	6.5m	8m	10m			12m	16m	20m
	15w/16.5w	1.5m	3m	3.5m	4m	4.5m			5.5m	7m	9m	10m	
	22w	1m	2m	2m	3m	3.5m	4m	5m			6.5m	8.5m	10m
Energizing way		DC input 						DC input  DC input					

- Note : 1. These are the light maximum recommended running length subject to selected power supply.
 2. For example: It is recommended to use one 80W power supply loading maximum 8m light (8w/m) or maximum 5m light (12w/m) by energizing the light one end.